Mr. Raymond Heidinger Polymer Sealing Solutions - Seals Division 2531 Bremer Drive Fort Wayne, IN 46803

Dear Mr. Heidinger:

Re: Registered Construction and Operation Status, 003-15680-00219

Dear Mr. Heidinger:

The application from Polymer Sealing Solutions - Seals Division, received on May 29, 2002, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5-1, it has been determined that the following emission units, to be located at 2531 Bremer Drive, Fort Wayne, Indiana 46803, is classified as registered:

Two (2) space heaters, identified as # 1 and # 2, fueled by natural gas, each with a heat capacity of 0.18 mmBTU per hour.

One (1) space heater, identified as # 4, fueled by natural gas, with a heat capacity of 0.15 mmBTU per hour.

One (1) space heater, identified as # 6, fueled by natural gas, with a heat capacity of 0.125 mmBTU per hour.

One (1) HVAC unit, identified as # 9, fueled by natural gas, with a heat capacity of 0.16 mmBTU per hour.

Three (3) electric ovens, identified as # 16, # 18, and # 19, each with a capacity of 60 kilowatts per hour.

- One (1) oven, identified as # 17, with a heat capacity of 0.8 mmBTU per hour.
- One (1) electric oven, identified as # 20, with a capacity of 60 kilowatts per hour.
- One (1) electric oven, identified as # 21, with a heat capacity of 0.8 mmBTU per hour.
- One (1) space heater, fueled by natural gas, identified as # 22, fueled by natural gas, with a heat capacity of 0.175 mmBTU per hour.
- One (1) electric HVAC, identified as # 29, unknown kilowatts per hour.
- Two (2) space heaters, fueled by natural gas, identified as # 30 and # 36, each with a heat capacity of 0.18 mmBTU per hour.
- Four (4) space heaters, fueled by natural gas, identified as # 37, # 38, # 41 and #42, each with a heat capacity of 0.225 mmBTU per hour.
- One (1) space heater, fueled by natural gas, identified as # 45, with a heat capacity of 0.2 mmBTU per hour.

- One (1) space heater, fueled by natural gas, identified as # 46, with a heat capacity of 0.175 mmBTU per hour.
- Three (3) space heaters, fueled by natural gas, identified as # 47, # 50, and # 51, each with a heat capacity of 0.225 mmBTU per hour.
- One (1) space heater, fueled by natural gas, identified as # 54, with a heat capacity of 0.25 mmBTU per hour.
- One (1) space heater, fueled by natural gas, identified as # 57, with a heat capacity of 0.35 mmBTU per hour.
- One (1) electric oven, identified as # 59, unknown kilowatts per hour.
- One (1) oven, fueled by natural gas, identified as # 60, with a heat capacity of 0.15 mmBTU per hour.
- One (1) HVAC, fueled by natural gas, identified as # 61, with a heat capacity of 0.18 mmBTU per hour.
- Two (2) electric HVACs, identified as # 62 and # 64, unknown kilowatts per hour.
- One (1) water heater, fueled by natural gas, identified as # 67, with a heat capacity of 0.04 mmBTU per hour.
- One (1) HVAC, fueled by natural gas, identified as # 72, with a heat capacity of 0.15 mmBTU per hour.
- One (1) space heater, fueled by natural gas, identified as # 73, with a heat capacity of 0.175 mmBTU per hour.
- Two (2) electric ovens, identified as # 75 and # 76, 45 kilowatts per hour.
- One (1) space heater, fueled by natural gas, identified as # 78, with a heat capacity of 0.175 mmBTU per hour.
- One (1) HVAC, fueled by natural gas, identified as # 81, with a heat capacity of 0.225 mmBTU per hour.
- Two (2) space heaters, fueled by natural gas, identified as # 82 and # 83, with a heat capacity of 0.175 mmBTU per hour.
- One (1) HVAC, fueled by natural gas, identified as # 84, with a heat capacity of 0.12 mmBTU per hour.
- Two (2) furnaces, fueled by natural gas, identified as # 85 and # 86, each with a heat capacity of 0.12 mmBTU per hour.
- Two (2) HVACs, fueled by natural gas, identified as # 88 and # 89, each with a heat capacity of 0.12 mmBTU per hour.
- Two (2) paint booths, coating hydraulic and pneumatic seals (gaskets), coating 150 units per hour.
- One (1) natural gas laboratory oven, with a heat capacity of 0.175 mmBTU per hour.
- One (1) polyurethane elastomers testing process, producing 1.25 pounds of elastomers per hour,

using canopies # A-65 and A-66, and lab hoods # A-67 and A-68.

A seals and wipers production unit, for formulating a polyurethane elastomer polymer, using isocyanate-terminated prepolymer. The process includes casting, granulation, drying, extrusion, pelletization, and injection molding at the production rate of 67 lb/hr. The isocyanate prepolymer pellets production is outsourced which results in low VOC emissions.

A production unit for sodium etched Teflon, producing a maximum of 800 pounds of the product. This production unit consists of an ammonia tank, a mixing bucket, and etchant and rinse baths.

Two (2) post-cure ovens for curing rubber products, each processing 25 pounds of rubber per hour.

One (1) rubber extruder, maximum capacity: 18 inches per minute.

One (1) three-station vacuum press.

Two (2) refrigerators and one (1) tumbler.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuos opacity monitor in a six (6) hour period.
- (2) Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the surface coating operation and each rubber curing oven shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$
 where  $E =$  rate of emission in pounds per hour and  $P =$  process weight rate in tons per hour

The dry filter shall be in operation at all times the surface coating unit is in operation, in order to comply with this limit.

For a maximum process weight rate of less than 100 lb/hr, the PM emissions from each of the two (2) rubber curing ovens shall be limited to 0.55 lb/hr.

- (3) Any change or modification which may increase the actual emissions of VOC from the surface coating operation to fifteen (15) pounds per day shall require approval from IDEM, OAQ, prior to making the change.
- (4) Any change or modification which may increase the potential to emit of a combination of HAPs to twenty-five (25) tons per year or a single HAP to ten (10) tons per year from this source shall require approval from IDEM, OAQ, prior to making the change.

Page 4 of 4 Registration No. 003-15680-00219

This registration is a re-registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by Paul Dubenetzky

Paul Dubenetzky, Chief Permits Branch Office of Air Quality

mm

cc: File - Allen County

Allen County Health Department Air Compliance - Jennifer Dorn Permit Tracking - Janet Mobley

Technical Support and Modeling - Michele Boner

Compliance Data Section - Karen Nowak

# Registration Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name: Polymer Sealing Solutions - Seals Division
Address: 2531 Bremer Drive
City: Fort Wayne, Indiana 46803
Authorized individual:
Phone #:
Registration #: 003-15680-00219

I hereby certify that **Polymer Sealing Solutions - Seals Division** is still in operation and is in compliance with the requirements of Registration **003-15680-00219** 

Name (typed):	
Title:	
Signature:	
Date:	

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for a Registration

#### **Source Background and Description**

Source Name: Polymer Sealing Solutions - Seals Division Source Location: 2531 Bremmer Road, Fort Wayne, IN 46801

County: Allen SIC Code: 3089

Operation Permit No.: 003-15680-00219
Permit Reviewer: Madhurima D. Moulik

The Office of Air Quality (OAQ) has reviewed an application from Polymer Sealing Solutions - Seals Division, relating to the construction and operation of two (2) rubber curing ovens and a rubber extrusion system. The source also consists of some permitted emission units as listed below.

#### **Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

Two (2) space heaters, identified as # 1 and # 2, fueled by natural gas, each with a heat capacity of 0.18 mmBTU per hour.

One (1) space heater, identified as # 4, fueled by natural gas, with a heat capacity of 0.15 mmBTU per hour.

One (1) space heater, identified as # 6, fueled by natural gas, with a heat capacity of 0.125 mmBTU per hour.

One (1) HVAC unit, identified as # 9, fueled by natural gas, with a heat capacity of 0.16 mmBTU per hour.

Three (3) electric ovens, identified as # 16, # 18, and # 19, each with a capacity of 60 kilowatts per hour.

- One (1) oven, identified as # 17, with a heat capacity of 0.8 mmBTU per hour.
- One (1) electric oven, identified as # 20, with a capacity of 60 kilowatts per hour.
- One (1) electric oven, identified as # 21, with a heat capacity of 0.8 mmBTU per hour.
- One (1) space heater, fueled by natural gas, identified as # 22, fueled by natural gas, with a heat capacity of 0.175 mmBTU per hour.
- One (1) electric HVAC, identified as # 29, unknown kilowatts per hour.
- Two (2) space heaters, fueled by natural gas, identified as # 30 and # 36, each with a heat

capacity of 0.18 mmBTU per hour.

Four (4) space heaters, fueled by natural gas, identified as # 37, # 38, # 41 and #42, each with a heat capacity of 0.225 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 45, with a heat capacity of 0.2 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 46, with a heat capacity of 0.175 mmBTU per hour.

Three (3) space heaters, fueled by natural gas, identified as # 47, # 50, and # 51, each with a heat capacity of 0.225 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 54, with a heat capacity of 0.25 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 57, with a heat capacity of 0.35 mmBTU per hour.

One (1) electric oven, identified as # 59, unknown kilowatts per hour.

One (1) oven, fueled by natural gas, identified as # 60, with a heat capacity of 0.15 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 61, with a heat capacity of 0.18 mmBTU per hour.

Two (2) electric HVACs, identified as # 62 and # 64, unknown kilowatts per hour.

One (1) water heater, fueled by natural gas, identified as # 67, with a heat capacity of 0.04 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 72, with a heat capacity of 0.15 mmBTU per hour.

One (1) space heater, fueled by natural gas, identified as # 73, with a heat capacity of 0.175 mmBTU per hour.

Two (2) electric ovens, identified as # 75 and # 76, 45 kilowatts per hour.

One (1) space heater, fueled by natural gas, identified as # 78, with a heat capacity of 0.175 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 81, with a heat capacity of 0.225 mmBTU per hour.

Two (2) space heaters, fueled by natural gas, identified as # 82 and # 83, with a heat capacity of 0.175 mmBTU per hour.

One (1) HVAC, fueled by natural gas, identified as # 84, with a heat capacity of 0.12 mmBTU per hour.

Two (2) furnaces, fueled by natural gas, identified as # 85 and # 86, each with a heat capacity of 0.12 mmBTU per hour.

Two (2) HVACs, fueled by natural gas, identified as # 88 and # 89, each with a heat capacity of 0.12 mmBTU per hour.

Two (2) paint booths, coating hydraulic and pneumatic seals (gaskets), coating 150 units per hour.

One (1) natural gas laboratory oven, with a heat capacity of 0.175 mmBTU per hour.

One (1) polyurethane elastomers testing process, producing 1.25 pounds of elastomers per hour, using canopies # A-65 and A-66, and lab hoods # A-67 and A-68.

A seals and wipers production unit, for formulating a polyurethane elastomer polymer, using isocyanate-terminated prepolymer. The process includes casting, granulation, drying, extrusion, pelletization, and injection molding at the production rate of 67 lb/hr. The isocyanate prepolymer pellets production is outsourced which results in low VOC emissions.

A production unit for sodium etched Teflon, producing a maximum of 800 pounds of the product. This production unit consists of an ammonia tank, a mixing bucket, and etchant and rinse baths.

#### **New Emission Units and Pollution Control Equipment**

The source also consists of the following new emission units:

- (a) Two (2) post-cure ovens for curing rubber products, each processing 25 pounds of rubber per hour.
- (b) One (1) rubber extruder, maximum capacity: 18 inches per minute.
- (c) One (1) three-station vacuum press.
- (d) Two (2) refrigerators and one (1) tumbler.

#### **Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Exemption No. 003-4133-00219, issued on 10-26-1994.
- (b) Registration No. 003-6957-00219, issued on 11-19-1996.
- (e) Exemption No. 003-12190-00219, issued on 7-20-2000.
- (f) Exemption No. 003-14999-00219, issued on 12-10-2001.

All conditions from previous approvals were consolidated and incorporated into this permit.

#### **Enforcement Issue**

There are no enforcement actions pending.

#### Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on May 29, 2002.

#### **Emission Calculations**

See Appendix A of this document for detailed emissions calculations for the two (2) post-cure ovens.

Potential to emit of rubber extruder: 1.06E-04 lb of VOC/lb rubber.

Rubber processing rate = 25 lb/hr.

Potential to Emit = 1.04E-04 lb of VOC/lb rubber x 25 lb rubber/hr x 8760 hr/yr /2000 lb/ton

= 0.01 tons/yr.

#### **Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year) <sup>1</sup>
PM	1.26
PM-10	1.26
SO <sub>2</sub>	Negligible
VOC	14.92
СО	2.8
NO <sub>x</sub>	3.3
Combination HAPs	10.61

<sup>&</sup>lt;sup>1</sup> Based on sum of PTE determined in Exemption No. 003-14999 and PTE of new emission units.

- The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants are less (a) than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is less than twenty-five (c) (25) tons per year but greater than ten (10) tons per year. Therefore, pursuant to 2-5.1-2, a registration will be granted.

#### **County Attainment Status**

The source is located in Allen County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
$NO_2$	attainment
Ozone	attainment
СО	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Allen County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Allen County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

### **Source Status**

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1.26
PM10	1.26
SO <sub>2</sub>	Negligible
VOC	14.92
CO	2.8
NO <sub>x</sub>	3.3

(a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

#### **Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

#### **Federal Rule Applicability**

- (a) The storage and mixing tanks in the metal etched Teflon production unit are not subject to the requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels, 326 IAC 12, (40 CFR 60.110b, Subpart Kb), since no volatile organic liquids are stored in this tank.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

#### State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it does not have the potential to emit more than one hundred (100) tons per year of any pollutants.

#### 326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute (a) averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

### State Rule Applicability - Individual Facilities

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The two (2) new rubber curing ovens and the rubber extrusion system are not subject to the requirements of 326 IAC 8-1-6, (New Facilities; General Reduction Requirements), because the potential emissions of VOC from each unit is less than 25 tons per year.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The operation of each of the two (2) rubber curing ovens will emit less than 10 tons per year of a single HAP or 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 8-2 (Surface Coating Emissions Limitations)

The potential to emit of VOCs from the surface coating operation is 14.9 pounds per day (according to TSD for Exemption No. 003-14999). Therefore, since the actual emissions are less than 15 pounds per day, 326 IAC 8-2 does not apply. No other Article 8 rules apply.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the surface coating operation and each rubber curing oven shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The dry filter shall be in operation at all times the surface coating unit is in operation, in order to comply with this limit.

For a maximum process weight rate of less than 100 lb/hr, the PM emissions from each of the ovens shall be limited to 0.55 lb/hr. The potential to emit of PM of each of the two (2) rubber curing ovens is about 0.07 tons/year or 0.016 lb/hr. Therefore, the two (2) rubber cure ovens are in compliance with this rule.

#### Conclusion

The construction and operation of the two (2) post-cure ovens and one (1) rubber extrusion system and the operation of the other emission units at this source shall be subject to the conditions of the attached proposed Registration No. 003-15680-00219.

# Appendix A: Emission Calculations VOC and HAP Emissions

Rubber Curing Ovens: 1,2 (Cpmd 17)
Total max rate = 50 lb/hr

Company Name: Polymer Sealing Solutions - Seals Division
Address City IN Zip: 2531 Bremer Drive, Fort Wayne, Indiana 46803
Permit 003-15680

Permit 003-15680 Plant ID: 003-00219

Reviewer: Madhurima D. Moulik

Date: 07-Jun-2002

Pollutant	Max. Rate	E.F.	Emission Rate	Total emissions
	(lb/yr)	(lb/lb)	(lb/yr)	(ton/yr)
VOC	438,000	2.49E-02	1.091E+04	5.453E+00
PM	438,000	6.75E-04	2.957E+02	1.478E-01
4.4.4 Tricklessesthesses	400.000	4 005 05	7.0045.00	2.045.02
1,1,1-Trichloroethane 1,1 Dichloroethene	438,000	1.80E-05	7.884E+00	3.94E-03
1,3-Butadiene	438,000 438,000	1.35E-05 1.15E-05	5.913E+00 5.037E+00	2.96E-03 2.52E-03
2,4-Dinitrophenol	438,000	3.98E-07	1.743E-01	8.72E-05
2-Butanone	438,000	1.46E-04	6.395E+01	3.20E-02
2-Chloroacetophenone	438,000	1.34E-08	5.869E-03	2.93E-06
2-Methylphenol	438,000	2.13E-06	9.329E-01	4.66E-04
4-Methyl-2-Pentanone	438,000	7.54E-04	3.303E+02	1.65E-01
4-Nitrophenol	438,000	2.44E-07	1.069E-01	5.34E-05
Acetaldehyde	438,000	1.71E-05	7.490E+00	3.74E-03
Acetonitrile	438,000	1.14E-05	4.993E+00	2.50E-03
Acetophenone	438,000	2.13E-04	9.329E+01	4.66E-02
Acrolein	438,000	2.03E-05	8.891E+00	4.45E-03
Acrylonitrile	438,000	2.89E-04	1.266E+02	6.33E-02
Aniline	438,000	1.26E-05	5.519E+00	2.76E-03
Benzene	438,000	4.88E-05	2.137E+01	1.07E-02
Benzidine	438,000	4.44E-07	1.945E-01	9.72E-05
Biphenyl	438,000	3.96E-06	1.734E+00	8.67E-04
bis(2-Ethylhexyl)phthalate	438,000	1.82E-05	7.972E+00	3.99E-03
Bromoform	438,000	6.85E-06	3.000E+00	1.50E-03
Bromomethane	438,000	1.39E-06	6.088E-01	3.04E-04
Carbon Disulfide	438,000 438,000	2.52E-03	1.104E+03	5.52E-01
Carbon Tetrachloride Carbonyl Sulfide	438,000	1.15E-03 2.79E-04	5.037E+02 1.222E+02	2.52E-01 6.11E-02
Chloroethane	438,000	4.19E-05	1.835E+01	9.18E-03
Chloroform	438,000	1.60E-05	7.008E+00	3.50E-03
Chloromethane	438,000	2.18E-05	9.548E+00	4.77E-03
Cumene	438,000	7.82E-05	3.425E+01	1.71E-02
Di-n-butylphthalate	438,000	8.22E-06	3.600E+00	1.80E-03
Dibenzofuran	438,000	3.29E-06	1.441E+00	7.21E-04
Dimethylaminoazobenzene	438,000	4.03E-07	1.765E-01	8.83E-05
Dimethylphthalate	438,000	3.87೬-07	1.695೬-01	8.48೬-05
Ethyl Acrylate	438,000	1.16E-04	5.081E+01	2.54E-02
Ethylbenzene	438,000	1.06E-04	4.643E+01	2.32E-02
Hexachlorobenzene	438,000	2.29E-07	1.003E-01	5.02E-05
Hexachloroethane	438,000	3.03E-05	1.327E+01	6.64E-03
Hexane (c)	438,000	2.78E-03	1.218E+03	6.09E-01
Hydorquinone Isooctane	438,000	1.99E-05	8.716E+00	4.36E-03
Isophorone	438,000 438,000	1.89E-05 1.63E-05	8.278E+00 7.139E+00	4.14E-03 3.57E-03
m-Xylene	438,000	1.33E-06	5.825E-01	2.91E-04
m-Xylene + p-Xylene	438,000	3.55E-04	1.555E+02	7.77E-02
Methylene Chloride	438,000	9.51E-04	4.165E+02	2.08E-01
N,N-Dimethylaniline	438,000	1.26E-06	5.519E-01	2.76E-04
Naphthalene	438,000	7.59E-06	3.324E+00	1.66E-03
Nitrobenzene	438,000	4.97E-07	2.177E-01	1.09೬-04
o- I oluidine	438,000	5.50E-06	2.409E+00	1.20E-03
o-Xylene	438,000	1.9E-04	8.322E+01	4.16E-02
p-Xylene	438,000	2.53E-05	1.108E+01	5.54E-03
Pentachlorophenol	438,000	3.08E-07	1.349E-01	6.75E-05
Phenol	438,000	3.13E-05	1.371E+01	6.85E-03
Propanal	438,000	8.19E-05	3.587E+01	1.79E-02
Propylene Oxide	438,000	1.72E-04	7.534E+01	3.77E-02
Styrene Substituted Quinonline	438,000 438,000	1.05E-04 1.23E-04	4.599E+01 5.387E+01	2.30E-02
t-Butyl Methyl Ether	438,000	1.23E-04 1.97E-04	5.387E+01 8.629E+01	2.69E-02 4.31E-02
Tetrachloroethene	438,000	1.01E-04	4.424E+01	2.21E-02
Toluene	438,000	5.68E-04	2.488E+02	1.24E-01
Trichloroethene	438,000	5.46E-06	2.391E+00	1.20E-03
Vinyl Chloride	438,000	3.24E-07	1.419⊵-01	7.10⊨-05
•			Total HAPs	2.57E+00
Made a data as a				

Methodology

Emission factors taken from the study completed for the Rubber Manufacturers Association (RMA), 9/96; emission factors shown				

represent worst-case rubber on a pollutant-by-pollutant basis.

Note: The study by the RMA, 9/96, is used for AP-42, Section 4.12, Manufacture of Rubber, 6/99, draft.

Potential emissions in tons per year = maximum production rate (175,200 lbs/yr \* 4 post cure ovens) \* e.f. (lb/lb)/2000

Hexane is the worst case single HAP (in bold).